

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

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## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
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03 NOV 2008

Applicant's or agent's file reference  
37112-257718

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

PCT/US 08/09073

International filing date (day/month/year)

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Priority date (day/month/year)

26 July 2007 (26.07.2007)

International Patent Classification (IPC) or both national classification and IPC

IPC(8) - H04N 7/18 (2008.04)

USPC - 348/143

Applicant OBJECTVIDEO, INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis. I(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/US  
Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450, Alexandria, Virginia 22313-1450  
Facsimile No. 571-273-3201

Date of completion of this opinion

22 October 2008 (22.10.2008)

Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300  
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Form PCT/ISA/237 (cover sheet) (April 2007)

Written Opinion

2 MONTH REMINDER

1 MONTH REMINDER

2 WEEK REMINDER

3 DAY REMINDER

1/20/09  
1/31/09

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Box No. 1 Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

☒ the international application in the language in which it was filed.  
☐ a translation of the international application into \_\_\_\_\_ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

☐ on paper  
☐ in electronic form

c. time of filing/furnishing

☐ contained in the international application as filed  
☐ filed together with the international application in electronic form  
☐ furnished subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims	1-27	YES
	Claims	None	NO
Inventive step (IS)	Claims	None	YES
	Claims	1-27	NO
Industrial applicability (IA)	Claims	1-27	YES
	Claims	None	NO

**2. Citations and explanations:**

Claims 1-27 lack an inventive step under PCT Article 33(3) as being obvious over US 2007/0052803 A1 to Chosak et al. (hereinafter "Chosak") in view of US 2007/0127774 A1 to Zhang et al. (hereinafter "Zhang").

Regarding claim 1, Chosak teaches a video surveillance system comprising: a video sensor for receiving a video (see para [0041]); a processing unit for processing the received video (see para [0042]); a rule detector for creating a rule from the processed video (see para [0042]); and output means for outputting information based on the detected event of interest (see para [0043]-[0044]; [0051]-[0054]), but does not specifically teach an event detector for detecting an event of interest based on the rule. Zhang teaches a target detection and tracking system comprising an event detector for detecting an event of interest based on the rule (see para [0078]-[0081]; [0164]; [0166]). It would have been obvious to one of ordinary skill in the art to utilize the system comprising an event detector for detecting an event of interest based on the rule of Zhang and to combine it with the system of Chosak because it would provide configurable event detection and tracking, thereby increasing the robustness and cost-effectiveness of the system.

Regarding claim 2, Chosak in view of Zhang teaches the system of claim 1. Chosak further teaches wherein the processing unit processes the received video to detect at least one trackable object (see para [0047]-[0050]).

Regarding claim 3, Chosak in view of Zhang teaches the system of claim 2. Zhang further teaches wherein the rule detector creates the rule by observing the trackable object (see para [0080]-[0082]; [0092]; [0096]; [0112]).

Regarding claim 4, Chosak in view of Zhang teaches the system of claim 2. Chosak further teaches wherein the trackable object is at least one of: a person; a vehicle; a watercraft in a water scene; a light emitting diode (LED) emitter; an audio emitter; a radio frequency (RF) emitter; an infrared (IR) device; a prescribed configuration pattern; or an object observable by the video sensor (see para [0050]).

Regarding claim 5, Chosak in view of Zhang teaches the system of claim 1. Chosak further teaches wherein the rule detector creates at least one of: a tripwire, an area of interest (AOI), a direction, or a speed (see para [0053]).

Regarding claim 6, Chosak in view of Zhang teaches the system of claim 1. Chosak further teaches wherein the rule detector operates when the system is in a configuration mode (see para [0052]; [0078]; [0080]).

Regarding claim 7, Chosak in view of Zhang teaches the system of claim 6. Chosak further teaches a system further comprising: an input mechanism, wherein the system is placed in the configuration mode with the input mechanism (see para [0052]; [0078]; [0080]).

Regarding claim 8, Chosak in view of Zhang teaches the system of claim 7. Zhang further teaches wherein the input mechanism is a component of the video sensor (see para [0171]-[0173]; [0175]).

Regarding claim 9, Chosak in view of Zhang teaches the system of claim 1. Chosak further teaches wherein the rule detector creates a default rule (see para [0052]-[0053]; [0078]).

Regarding claim 10, Chosak in view of Zhang teaches the system of claim 1. Zhang further teaches wherein the rule detector creates a rule from the processed video and at least one user input (see para [0171]-[0173]; [0175]).

Regarding claim 11, Chosak in view of Zhang teaches the system of claim 10. Chosak further teaches wherein the at least one user input includes at least one of: an activity type, an object type, a time, or a date (see para [0052]-[0053]; [0078]).

Regarding claim 12, Chosak teaches an apparatus for video surveillance configured to perform a method comprising: receiving a video (see para [0041]); processing the received video (see para [0042]); creating a rule from the processed video (see para [0042]); and outputting information based on the detected event of interest (see para [0043]-[0044]; [0051]-[0054]), but does not specifically teach detecting an event of interest in the video based on the rule. Zhang teaches an apparatus for target detection and tracking comprising ordinary skill in the art to utilize the apparatus comprising detecting an event of interest in the video based on the rule of Zhang and to combine it with the apparatus of Chosak because it would provide configurable event detection and tracking, thereby increasing the adaptability and cost-effectiveness of the apparatus.

--- continued in Supplemental Box ---

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**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box No. V

**2. Citations and explanations:**

Regarding claim 13, Chosak in view of Zhang teaches the apparatus of claim 12. Chosak further teaches wherein processing the received video includes detecting a trackable object in the received video (see para [0047]-[0050]).

Regarding claim 14, Chosak in view of Zhang teaches the apparatus of claim 13. Zhang further teaches wherein creating a rule comprises: observing the trackable object and creating the rule based on the observation (see para [0080]-[0082]; [0092]; [0096]; [0112]).

Regarding claim 15, Chosak in view of Zhang teaches the apparatus of claim 13. Chosak further teaches wherein tracking the trackable object comprises tracking at least one of: a person; a vehicle; a watercraft in a water scene; a light emitting diode (LED) emitter; an audio emitter; a radio frequency (RF) emitter; an infrared (IR) device; a prescribed configuration pattern; or an object observable by a video sensor (see para [0050]).

Regarding claim 16, Chosak in view of Zhang teaches the apparatus of claim 12. Chosak further teaches wherein creating a rule comprises: creating at least one of a tripwire, an area of interest (AOI), a direction, or a speed (see para [0053]).

Regarding claim 17, Chosak in view of Zhang teaches the apparatus of claim 12. Chosak further teaches wherein the apparatus is configured to be placed in a configuration mode prior to processing the received video and creating the rule (see para [0052]; [0078]; [0080]).

Regarding claim 18, Chosak in view of Zhang teaches the apparatus of claim 12. Chosak further teaches wherein creating a rule comprises creating a default rule (see para [0052]-[0053]; [0078]).

Regarding claim 19, Chosak in view of Zhang teaches the apparatus of claim 12. Zhang further teaches wherein creating a rule comprises creating a rule from the processed video and at least one user input (see para [0171]-[0173]; [0175]).

Regarding claim 20, Chosak in view of Zhang teaches the apparatus of claim 19. Chosak further teaches wherein the at least one user input includes at least one of: an activity type, an object type, a time, or a date (see para [0052]-[0053]; [0078]).

Regarding claim 21, Chosak teaches a method of rule detection in a video surveillance system comprising: receiving a video (see para [0041]); processing the received video (see para [0042]); creating a rule from the processed video (see para [0042]); and outputting information based on the detected event of interest (see para [0043]-[0044]; [0051]-[0054]), but does not specifically teach detecting an event of interest in the video based on the rule. Zhang teaches a method for target detection and tracking comprising detecting an event of interest in the video based on the rule (see para [0078]-[0081]; [0164]; [0166]). It would have been obvious to one of ordinary skill in the art to utilize the method comprising detecting an event of interest in the video based on the rule of Zhang and to combine it with the method of Chosak because it would provide configurable event detection and tracking, thereby increasing the robustness and cost-effectiveness of the method.

Regarding claim 22, Chosak in view of Zhang teaches the method of claim 21. Chosak further teaches a method further comprising: entering a configuration mode prior to processing the received video (see para [0052]; [0078]; [0080]); detecting and observing a trackable object (see para [0047]-[0050]), but does not specifically teach and creating the rule based on the observed trackable object. Zhang further teaches creating the rule based on the observed trackable object (see para [0080]-[0082]; [0092]; [0096]; [0112]).

Regarding claim 23, Chosak in view of Zhang teaches the method of claim 22. Chosak further teaches wherein detecting the trackable object comprises detecting at least one of: a person; a vehicle; a watercraft in a water scene; a light emitting diode (LED) emitter; an audio emitter; a radio frequency (RF) emitter; an infrared (IR) device; a prescribed configuration pattern; or an object observable by a video sensor (see para [0050]).

Regarding claim 24, Chosak in view of Zhang teaches the method of claim 21. Chosak further teaches wherein creating the rule comprises: creating at least one of a tripwire, an area of interest (AOI), a direction, or a speed (see para [0053]).

Regarding claim 25, Chosak in view of Zhang teaches the method of claim 21. Chosak further teaches wherein creating a rule comprises creating a default rule (see para [0052]-[0053]; [0078]).

Regarding claim 26, Chosak in view of Zhang teaches the method of claim 21. Zhang further teaches wherein creating a rule comprises creating a rule from the processed video and at least one user input (see para [0171]-[0173]; [0175]).

Regarding claim 27, Chosak in view of Zhang teaches the method of claim 26. Chosak further teaches wherein the at least one user input includes at least one of: an activity type, an object type, a time, or a date (see para [0052]-[0053]; [0078]).

Claims 1-27 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.